

Having thus described the invention, what is claimed is:

- 1 1. A steering wheel rim formed by the process comprising the steps of:
2 inserting a round stock of linear steel tubing having distal ends into a first
3 tool to form said tubing into a generally circular shape having an oval-shaped cross-
4 section defining an elongated axis, the two ends being located adjacent one another;
5 securing the two ends to one another to form a circular blank;
6 placing the blank in a second tool having a circular die;
7 striking the blank with a forming punch formed with a compound curved
8 shape to form an indentation axially into one side of said blank;
9 then, rotatably indexing the circular die circumferentially relative to said
10 second tool to position said blank relative to said forming punch; and
11 repeating said striking and indexing steps until said one side is formed with
12 a desired number of indentations in a predetermined pattern.
- 1 2. The steering wheel rim of Claim 1 wherein said striking step includes the
2 use of multiple forming punches striking said blank simultaneously at equidistant places
3 around said blank.

1 3. The steering wheel rim of Claim 2 wherein said indexing step includes a
2 relative movement between said circular die and said second tool equal to a multiple of a
3 desired spacing between indentations to locate subsequent indentations in said
4 predetermined pattern adjacent the previous indentations.

1 4. The steering wheel rim of Claim 3 wherein said predetermined pattern
2 includes a series of equidistantly spaced indentations filling said one side of said blank.

1 5. The steering wheel rim of Claim 4 wherein said securing step comprises
2 welding said two ends together.

1 6. The steering wheel rim of Claim 5 wherein said process further includes the
2 step of welding a plurality of spokes interconnecting a central hub and said blank after the
3 formation of said indentations has been completed.

1 7. The steering wheel rim of Claim 6 wherein said multiple forming punches
2 comprise three forming punches spaced circumferentially around said tool, each said
3 forming punch being associated with a die block affixed to an upper portion of said tool
4 cooperable with a lower portion of said tool to capture said blank therebetween for the
5 operative formation of said indentations.

1 8. The steering wheel rim of Claim 6 wherein said tubing is formed of
2 stainless steel.

1 9. A method of manufacturing a stainless steel steering wheel rim comprising
2 the steps of:

3 placing a circular blank having an oval-shaped cross-section defining an
4 elongated axis into a tool having a circular die;

5 striking the blank simultaneously with multiple forming punches spaced
6 equidistantly along the circumference of said circular die, each said forming punch being
7 formed with a compound curved shape to form an indentation axially into one side of said
8 blank;

9 then, indexing the blank circumferentially relative to said forming punches
10 to position said blank for a subsequent formation of a new indentation into said blank;
11 and

12 repeating said striking and indexing steps until said one side is formed with
13 a desired number of indentations having a defined spacing in a predetermined pattern.

1 10. The method of Claim 9 further comprising the step of:
2 forming said circular blank by the steps of:
3 a. inserting a round stock of linear stainless steel tubing, having
4 a pair of distal ends, into a first tool to convert said tubing into a generally circular shape
5 having said oval-shaped cross-section defining said elongated axis, the two distal ends
6 being located adjacent one another; and
7 b. welding said two ends together to form a circular blank.

1 11. The method of Claim 10 further comprising the step of welding a plurality
2 of spokes interconnecting a central hub and said blank after the formation of said
3 indentations has been completed.

1 12. The method of Claim 9 wherein said multiple forming punches are located
2 circumferentially around said circular die at a distance greater than the spacing of two
3 indentations.

1 13. The method of Claim 12 wherein each of said multiple forming punches is
2 associated with a die block affixed to an upper portion of the tool operatively positioned
3 above said circular die.

1 14. The method of Claim 13 wherein each said indexing step includes a
2 rotational movement of said circular die relative to said die blocks equal to a multiple of a
3 desired spacing between indentations to locate subsequent indentations in said
4 predetermined pattern.

1 15. A stainless steel steering wheel comprising:
2 a circular rim having a bottom side and a top side, said rim having a cross-
3 section formed in an oval tear drop shape defining an elongated axis extending between
4 said top side and said bottom side;
5 a plurality of equidistantly spaced finger grip indentations formed axially
6 into said bottom side to provide a convoluted surface for gripping said rim;
7 a central hub adapted for operative connection to a steering mechanism; and
8 a plurality of spokes welded between said central hub and said circular rim.

1 16. The steering wheel of Claim 15 wherein said finger grip indentations are
2 equidistantly spaced entirely around the circumference of said bottom side.

1 17. The steering wheel of Claim 16 wherein said finger grip indentations are
2 formed in said bottom side by placing said circular rim into a circular die, striking a
3 forming punch into said rim, circumferentially indexing said circular rim relative to said
4 circular die, and repeating the striking of said forming punch and the indexing of said die
5 until all of said indentations have been formed.

1 18. The steering wheel of Claim 17 wherein said finger grip indentations are
2 formed into said rim by multiple forming punches striking said circular rim
3 simultaneously before being indexed circumferentially around said circular rim.

1 19. The steering wheel of Claim 18 wherein said multiple forming punches are
2 located circumferentially around said circular die at a distance at least the spacing of two
3 finger grip indentations.